

REMARKS

Claims 1-14 and 16-20 are pending in the present application.

In the Office Action of November 10, 2009, the drawings were objected to for allegedly not showing “the step of synchronizing, as recited in claim 1, [and] the means configured to synchronize as recited in claim 17, claim 18” (Office Action, p. 2), claim 17 was objected to because of various informalities (Office Action, p. 3), and claims 17 and 18 (and the claims dependent thereon) were rejected under 35 U.S.C. §112, ¶2 because the Examiner could not identify in the drawings the structure corresponding to the means for synchronizing” (Office Action, p. 3-4).

Also in the Office Action, claims 1-14 and 16 were allowed, and claims 17-20 were indicated as allowable if rewritten or amended to overcome the rejections under 35 U.S.C. §112, ¶2 set forth in the Office Action.

On January 4, 2010, Applicants filed an amendment in response to the Office Action. In its response, Applicants, among other things, amended FIG. 3 to include a step of synchronizing and provided the support therefor. Applicants also amended claim 17 to correct various informalities, amended claims 18-20 to eliminate “means-plus-function” language, and identified the elements in FIGS. 9 and 10 believed to correspond to the means for synchronizing of claim 17.

On January 12, 2010, the USPTO transmitted an Advisory Action. In the Advisory Action, the Examiner indicated that the Amendment filed on January 4, 2010 will be entered and reiterated the allowability of claims 1-14 and 16, but maintained the rejection of claims 17-20 and the associated objections to the drawings “because the means for synchronizing

[claim 17]/synchronizer [claim 18] in combination with the other claimed limitations is not shown [in the drawings].”

By the present amendment, Applicants have amended FIG. 9 to include a synchronizer as corresponding to the means for synchronizing/synchronizer of claims 17 and 18. Applicants also have amended claim 17 to add back the element “an apparatus”, which was inadvertently deleted in a prior amendment.

No new matter has been presented. Reconsideration of the above-identified application in view of the foregoing amendments and the following remarks is respectfully requested.

Claim 17 recites “means for synchronizing the apparatus to the multi-carrier transmission bursts by finding the index of received symbols based on the pilot carrier position”. Claim 18 recites “a synchronizer configured to synchronize the receiver to the multi-carrier transmission bursts by finding the index of received symbols based on the pilot carrier position.”

Thus, the means for synchronizing/synchronizer of claims 17 and 18 depend upon a pilot carrier position. In the specification, the pilot carrier position is determined in step 307 (“determining correlation maximum”) of FIG. 3. (See, e.g., Specification, p. 8, lines 32 – p. 9, line 5) In addition, synchronization time is described in the specification as “until the Channel Estimation” (CHE), which occurs in step 308 of FIG. 3. (See, e.g., Specification, p. 8, line 28) Hence, the step of “synchronization” in FIG. 3, occurs between step “307” and “CHE 308”, as shown in FIG. 3.

Turning to FIG. 9, it “depicts a partial functional block diagram of a receiver for receiving a transmission in accordance with embodiments of the invention”. (Specification, p. 15, lines 24-25) Moreover, the specification provides that “some embodiments of the receiver

can be adopted to carry out the process of the example of Fig. 3.” (Specification, p. 15, 28-29). As such, as described in the specification in connection with embodiments of the invention and, like in FIG. 3 of the instant application, synchronization occurs in FIG. 9 after the pilot carrier position is determined (i.e., after determining a correlation maximum) and before channel estimation is performed. As discussed in the specification, the former occurs in decision block 909 of FIG. 9 and the latter occurs in block CHE 910 of FIG. 9. Thus, synchronization occurs between blocks 909 and 910.

Accordingly, Applicants have amended FIG. 9 to include a synchronizer block between “909” and “CHE 910”, have identified this block in FIG. 9 using reference element 909A and have amended the specification to include therein an association of the synchronizer with reference element 909. Applicants have submitted herewith a revised drawing sheet for FIG. 9. It has been labeled with the indicia “REPLACEMENT SHEET” in accordance with 37 C.F.R. §1.121(d).

Applicants respectfully submit that synchronizer 909A in FIG. 9 corresponds to the means for synchronizing/synchronizer of claims 17 and 18.

Moreover, as further disclosed in the specification, FIG. 10 is “a more general functional block diagram of the receiver” of FIG. 9. (Specification, p. 17, lines 21-22) As the Examiner correctly notes, “Fig. 10 per the specification page 17 is configured to perform the various operations described in Fig. 3-9.” (Advisory Action) In fact, the specification provides that [t]he illustrated receiver 1000 may be used in any or all of the various embodiments.” (Specification, p. 17, lines 22-23) As such, FIG. 10 includes the synchronization discussed in the specification and shown in FIGS. 3 and 9 and that synchronization would be performed by

processing unit 1003 in combination with receiver 1001, as discussed in Applicants' immediately prior response.

Further support for the positions set forth above can be found at page 2, second, third and sixth paragraphs, page 10, first paragraph, page 15, fourth paragraph and page 17, the last few lines of the sixth paragraph.

In view of the foregoing, Applicants respectfully request that the objections to the drawings and the associated rejections of claims 17-20 be withdrawn.

Dependent Claims:

Applicants do not believe it necessary at this time to address the rejections of the dependent claims as Applicants believe that the foregoing places the independent claims in condition for allowance. Applicant, however, reserves the right to address those rejections in the future should such a response be deemed necessary and appropriate.

CONCLUSION

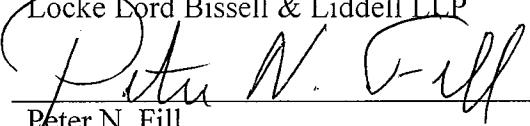
Based on the foregoing amendments and remarks, Applicants respectfully request reconsideration, withdrawal of the claim objections/rejections and allowance of this application.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 504827, Order No. 1004289-266US.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No 504827, Order No. 1004289-266US.

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